

I. Amendments to the Claims

This listing of claims replaces without prejudice all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) Method for functionalizing polysaccharides using a chemical source of free radicals, which forms stable radicals on a polysaccharide structure wherein at least one of the formed radicals reacts with a functionalized olefin, comprising:

a first step, wherein a free radical on a polysaccharide chain is formed, and

a second step, wherein said radical reacts with ~~an~~ the functionalized olefin in the absence of the chemical source of free radicals ~~a radical source~~; wherein

the polysaccharide is in the form of a fiber;

the amount of functional groups introduced in the polysaccharide is between 10^{-3} and 2 mol olefin/eq anhydrous glucose; and

the chemical source is Fenton's reagent.

2 - 3. (Canceled)

4. (Previously Presented) Method according to claim 1, wherein the polysaccharide is selected from the group consisting of flax fibers, cellulose, viscose and cotton fibers.

5. (Previously Presented) Method according to claim 4, wherein the polysaccharide is used together with one or more natural or synthetic fibers.

6. (Previously Presented) Method according to claim 5, wherein the natural or synthetic fibers are selected from silk, polyamide, polyester, polyacrylate and polyolefin.

7 - 9 . (Canceled)

10. (Previously Presented) Method according to claim 1, wherein the stable radicals have a half-life of about 1 day.

11 - 12. (Canceled)

13. (Previously Presented) Process for the preparation of functionalized polysaccharides or polymer fibers comprising:

a) forming stable radicals on a polysaccharide from a chemical free radical source wherein the chemical source is Fenton's reagent; and

b) reacting, in the absence of the free radical source, an olefin containing a functional group with the stable radicals on the polysaccharide.

14. (Canceled)

15. (Previously Presented) Method according to claim 1, wherein the amount of functional groups introduced in the polysaccharide is between 10^{-2} and 1 mol olefin/eq anhydrous glucose.

16. (New) The method of claim 1, wherein the functionalized olefin is selected from the group consisting of glycidylmethacrylate and allylglycidylether.

17. (New) The method of claim 1, further comprising washing the reaction mixture of the first step containing the polysaccharide chain having a free radical with water and filtering the washed reaction mixture.

18. (New) The method of claim 13, wherein the olefin containing a functional group is selected from the group consisting of glycidylmethacrylate and allylglycidylether.

19. (New) The method of claim 13, further comprising washing the reaction mixture containing the stable radicals on the polysaccharide with water and filtering the washed reaction mixture.